

## ABSTRACT

The invention is directed to a system and related method for determining a primary or master communication module in a system where multiple communication modules are present, and where each of the multiple communication modules are capable of operating in the primary or master capacity. Upon power-up, each communication module requests a response from a primary communication module. If no response is received within a predetermined time, the communication module self-promotes to master status, and broadcasts a message of that master status. If a response from a master is received, then the communication module remains in secondary or slave state. If multiple communication modules power on simultaneously, the first to win arbitration on the communication bus that couples them effectively wins the arbitration since that module starts its timer first. If the communication bus is such that multiple messages may transfer simultaneously, then ties regarding master capacity are settled based on highest assigned device address.

56248.01/1662.40700